

ENTOMOLOGY.—*New eumolpid beetles from the West Indies.*¹ DORIS H. BLAKE,
Arlington, Va.

Described herein are three new species of beetles of the genus *Metachroma* Dejean (Coleoptera: Eumolpidae) from Puerto Rico that have come to light in the collection of Stuart T. Danforth recently acquired by the Museum of Comparative Zoology; three new species of *Metachroma* collected by P. J. Darlington in Oriente Province, Cuba; and two new species of *Alethaxius* Lefèvre, one from Isle Tortue off Haiti, collected by Mr. and Mrs. E. C. Leonard, and the other collected by J. Acuña at Moa, Oriente Province, Cuba.

***Metachroma ensiforme*, n. sp.**

Fig. 1

About 3 mm in length, oblong-oval, shining pale yellow with reddish-brown markings on thorax and elytra; thorax finely and densely punctate except on the sides; elytra with only vestiges of striate punctation except for the strong punctures below the basal callosity and in the intrahumeral sulcus. Aedeagus unusually long and slender.

Head with interocular space less than half its width. Occiput and vertex with a faint obsolete punctation tending to give a wrinkled appearance; a deep groove about base of antennal sockets and connecting across lower front. Antennae pale with the outer joints slightly deeper in color and thicker, extending below the humeri. Prothorax not twice as broad as long, with arcuate sides and a small acute tooth at each corner; an indented line running along basal margin and behind the eyes anteriorly; a slight depression over the head; surface thickly punctate except about the edges; yellowish brown with a deeper reddish-brown median area. Elytron with deep intrahumeral sulcus and an indented line across the base and down along the suture; punctation indistinct except in intrahumeral sulcus and below the basal callosity; yellow-brown with two short reddish-brown vittae extending over the basal callosity and a diagonal stripe from about the middle of the side down to the suture, forming on the combined elytra a wide open V; in poorly marked specimens only traces of these

markings. Body beneath and legs pale yellow brown, shining, femora not toothed, claws with a long basal tooth. Length 2.7–3.1 mm; width 1.4–1.6 mm.

Type male and 4 paratypes, M. C. Z. no. 27677; 2 paratypes, U.S.N.M. no. 58356.

Type locality.—Pico Turquino, south side, 1,000–5,000 feet elevation, Oriente Province, Cuba, collected in June 1936 by P. J. Darlington.

Remarks.—The long, sword-shaped (although curved) aedeagus is unlike any that I have seen in this or related groups.

***Metachroma imitans*, n. sp.**

Fig. 2

Length approximately 2.5 mm, ovate, shining deep reddish brown with paler legs and antennae; head and prothorax distinctly punctate; elytral punctation not very distinct over basal callosities and in apical half.

Head with interocular space nearly half as wide as head; shining and lightly punctate above, more coarsely and densely so between the eyes and in lower half; frontal tubercles indistinctly marked; no groove between the eyes. Labrum paler but jaws edged with deep brown. Antennae pale; second joint nearly twice as long as third; distal joints a little thicker and deeper in coloring; extending well below the humeri. Prothorax not twice as wide as long, with arcuate sides and a small acute tooth at each corner and an indented line along base and extending from the sides up behind the eyes on the anterior margin; surface shining deep reddish brown but not quite so dark over the head and moderately closely and distinctly punctate; a slight depression behind the head. Elytra very shiny deep brown; humeri well marked; a depression behind the basal callosity; an indented line of punctures along basal margin and down along the suture to the apex, otherwise lines of punctures not very distinct their entire length, nearly vanishing over the basal callosities and behind the middle; the punctures large in the intrahumeral sulcus and in depression below the basal callosities. Body beneath and legs paler, shining; femora without toothing; claws toothed. Length 2.3–2.5 mm; width 1.2 mm.

¹ Received March 21, 1947.

Type male and 1 paratype (female), M. C. Z. no. 27678.

Type locality.—Aguadores, Oriente Province, Cuba, collected June 6, 1936, by P. J. Darlington.

Remarks.—This is very close to a species in the National Museum collected at Cayamas, Santa Clara Province, Cuba, by E. A. Schwarz and labeled by him as *M. puncticollis* Suffrian, a name later changed in the Junk Catalogue to *M. cubaecola* Clavareau. The punctuation is not quite so dense or distinct on the thorax and is less marked on the elytra. The aedeagus of the Cayamas species is peculiar in being forked like a claw at the tip, in this respect resembling at least one other species of *Metachroma* from North America. The aedeagus of *M. imitans*, in contrast, is of the ordinary sort, broad with an acute tip.

***Metachroma metrium*, n. sp.**

Fig. 3

About 4 mm in length, broadly oblong-oval shining yellow-brown with dark markings on the occiput, thorax, and elytra; on each elytron a spot on the basal callosity, three placed transversely below the basal callosity and two or three paler ones slightly below the middle of the elytron, one on the edge and the other on the side; punctuation of elytra indistinct in apical half.

Head with interocular space not half width of head; eyes large; occiput and front obsoletely punctate and somewhat wrinkled, yellowish with a broad dark band extending down front, faint indication of frontal tubercles and a slight depression between the eyes. Antennae extending to the middle of the elytra, the six distal joints deeper in color and thicker. Prothorax not quite twice as broad as long, with an acute tooth at each corner and slightly arcuate sides; surface mirror smooth, impunctate, yellow-brown with dark brown or piceous irregular markings on each side. Elytra with small humeri, a short intrahumeral depression, and not pronounced basal callosities; striate punctuation rather fine except below the basal callosities and indistinct in apical half; shining yellow-brown with a dark streak in the middle of the base, three small spots across below this, the outer one on the edge, and two or three larger, less distinct spots, slightly below the middle. Body beneath and legs pale, the femora

with a darker spot at the apical constriction and darker along the sides of the tibiae. No indication of toothing on femora; a short basal tooth on claws. Length 4.1–4.3 mm; width 2.2–2.4 mm.

Type male and 1 paratype, M. C. Z. no. 27679; 1 paratype, U.S.N.M. no. 58358.

Type locality.—Villalba, Puerto Rico, collected June 21–28, 1934, by C. M. Matos (Stuart T. Danforth Collection).

Remarks.—In shape and markings this species resembles somewhat *M. cincitipes* Blake, from the Dominican Republic, but that species has a larger prothorax and the elytral punctuation is more distinct.

***Metachroma xanthacrum*, n. sp.**

Fig. 4

Length 4.5 mm, oblong-oval, shining piceous with antennae, legs, margin and apex of elytra, and apex of abdomen pale; head and prothorax very finely and sparsely punctate; elytra with only the sutural striae entire, the short rows of punctures below basal callosity becoming progressively shorter toward the sides.

Head with interocular space less than half its width; eyes large; occiput and front with obsolete punctuation producing a wrinkled appearance; frontal tubercles faintly outlined; no groove between the eyes, lower front deep reddish brown, also a pale spot near eye on vertex. Antennae pale, extending below humeri; second joint longer than third; five distal joints thicker and hairier than basal joints. Prothorax not twice as wide as long, with rounded sides; a tooth at each corner and an indented line along basal margin and behind the eyes anteriorly; surface very smooth and shining, a few indistinct scattered punctures; piceous except a light reddish-brown area along anterior margin. Elytra with small humeri and a basal callosity with a depression below, in which there are short rows of coarse punctures; the sutural striae alone reaching apex and the other striae becoming progressively shorter toward the side; dark piceous except along pale sides and broadly pale apex; two reddish spots on each side of scutellum at base. Body beneath deep reddish brown with paler apical segments of abdomen; legs pale except at the constriction near the apex of femora and along sides of tibiae at base. All femora weakly toothed; claws with long basal tooth. Length 4.5 mm; width 2.4 mm.

Type female, M. C. Z. no. 27680.

Type locality.—Loma del Gato, Cobre Range, Oriente Province, Cuba, at about 3,000 feet elevation; collected July 3–7, 1936, by P. J. Darlington.

Remarks.—This species lies between *M. adustum* Suffrian from Cuba and *M. wolcottii* Bryant from Haiti. It resembles the former in general coloration, having a pale apex to the elytra, but lacks the distinct elytral punctation in which the rows of punctures are entire. In this respect it resembles the Haitian species *M. wolcottii*, which is entirely dark, with dark legs and elytra. *M. terminale*, described by Horn from Florida, is identical in outward appearance with *M. adustum* and was considered the same by E. A. Schwarz, and I synonymized the two at an earlier date. Dissection shows a slight difference in the aedeagus. Whether this indicates specific differentiation is a question only to be decided by breeding. The aedeagus of *M. wolcottii* is very similar to these two and drawings are here given of all three (Fig. 8). Unfortunately the only specimen known of *M. xanthacrum* is a female. These species are all very closely related and show the effects of isolation in the development of their small differences.

***Metachroma fenestratum*, n. sp.**

Fig. 5

About 3 mm in length, oblong, lustrous yellowish or reddish brown with a dark vitta on each side of the thorax and a broad dark marking on the basal callosity of the elytron and below along the suture, and a fainter band running from about the middle of the side diagonally across to the suture; head and thorax indistinctly punctate; elytra with large striate punctures for a short distance below the basal callosities and in the intrahumeral sulci.

Head with interocular space about half its width, smooth, in some specimens indistinct wrinkles as of obsolete punctures, the groove between the eyes and about antennal sockets deep. Antennae extending to the middle of the elytra; second joint longer than third and five distal joints heavier and with dark apex. Prothorax rather narrow, considerably less than twice as broad as long, with curved sides and a sharp tooth at each corner; an indented line along basal margin and anteriorly behind the eyes; surface very shiny, only indistinctly and

sparsely punctured; deep reddish brown with a dark stripe on either side. Elytra with small humeri and basal callosities and a deep intrahumeral sulcus; a line of indented punctures along base and down suture, and short rows of large punctures below the basal callosities and in the intrahumeral grooves, these rows becoming indistinct before the middle; surface very smooth and shiny; pale yellowish brown with dark markings in the middle of the base and below for a short distance along the suture, a darker band starting from the side at the middle and extending diagonally across to the suture, but becoming paler. Body beneath shining yellowish or reddish brown. Femora not toothed; claws with a long basal tooth. Length 2.8–3 mm, width 1.4 mm.

Type male and 1 paratype, M. C. Z. no. 27681; 1 paratype, U.S.N.M. no. 58357.

Type locality.—Yauco, Puerto Rico, collected June 15, 1934, by C. M. Matos (Stuart T. Danforth Collection).

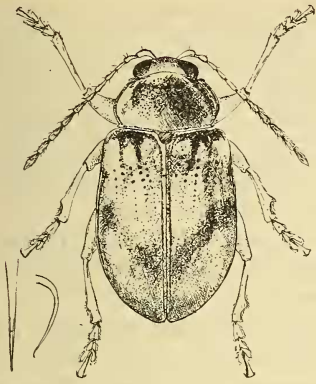
Remarks.—This is an unusually narrow species with markings similar to *Metachroma ensiforme*. The aedeagus, though not so narrow and sword-shaped, has a long acute tip but is much broader and shorter behind the tip.

***Metachroma amplicolle*, n. sp.**

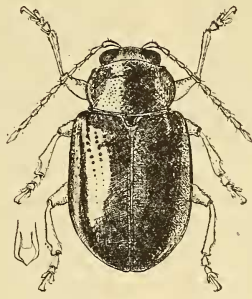
Fig. 6

About 3 mm in length, oblong, shining, yellow or reddish brown with a dark spot on the occiput, a broad irregular band across pronotum, and a small spot at base of the basal callosity and below in the depression and on the edge, and in some specimens two spots at the middle, one on the side and the other on the edge; pronotum almost impunctate; elytra with striate punctation entire only in the two rows next to the suture. Thorax almost as broad as elytra.

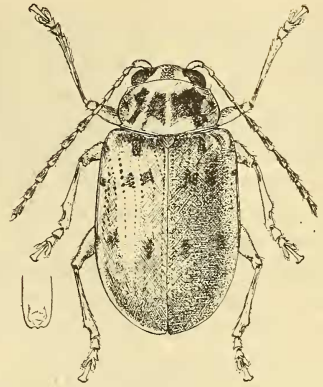
Head with interocular space less than half its width; eyes large; occiput and front distinctly but finely punctate, more coarsely in lower front; a median line between the tubercles and a groove about antennal sockets, a slight depression between the eyes; yellow-brown with a broad dark band down front. Antennae pale, extending to the middle of the elytra, the five distal joints heavier. Prothorax large and about as wide as elytra, not twice as broad as long, the sides arcuate; an indented line across the base and almost across the anterior margin,



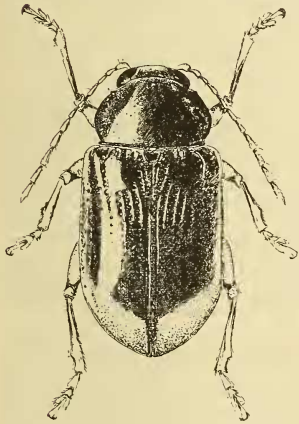
1. *Metachroma ensiforme*



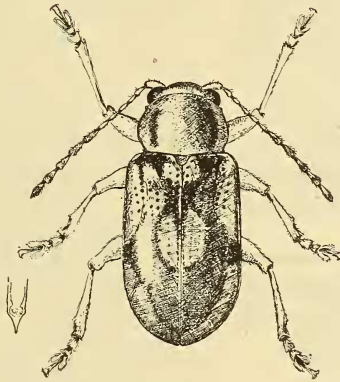
2. *Metachroma imitans*



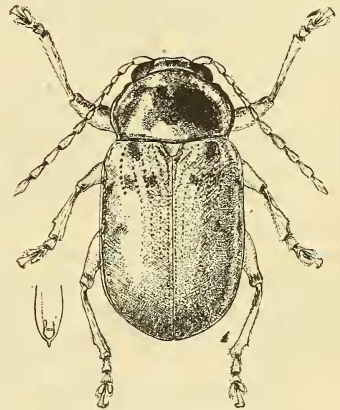
3. *Metachroma metrium*



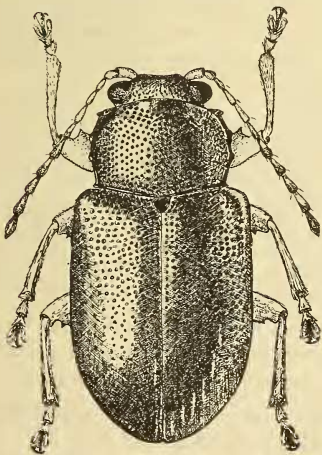
4. *Metachroma xanthacrum*



5. *Metachroma fenestratum*



6. *Metachroma amplicolle*



7. *Alethaxius tortuensis*



M. terminale



M. odostum

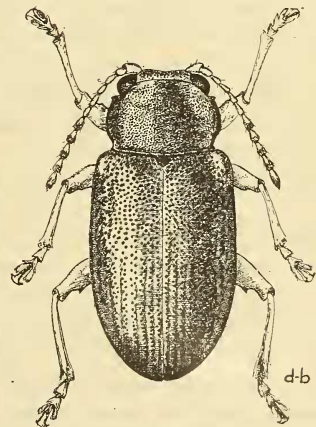


M. wolcottii



♂

8. *Metachroma* spp.



9. *Alethaxius acunai*

FIGS. 1-9.—New species of West Indian eumolpid beetles

a sharp tooth at each corner; surface very smooth and often impunctate, in some specimens a very fine punctation; reddish brown with a large transverse dark band, in paler specimens this band broken into two large spots. Elytra with small humeri and short intrahumeral sulci, a slight depression below basal callosities; punctation not very coarse and only the two lines next to the suture entire, the other rows of striate punctures becoming indistinct toward the apex; yellowish or reddish brown with piceous markings over the basal callosity and below humerous on the edge of the elytron, in darker specimens a spot on the side and one on the margin halfway down the elytra. Body beneath and legs pale and shining. No teeth on femora; in darker specimens a dark ring about constriction of femora near the apex; claws toothed. Length 2.7–3.4 mm; width 1.4–1.6 mm.

Type male and 3 paratypes, M. C. Z. no. 27682; 1 paratype, U.S.N.M. no. 58359.

Type locality.—Guanica, Puerto Rico, collected June 25, 1934, by C. M. Matos (Stuart T. Danforth Collection).

Remarks.—In its unusually heavy prothorax this species resembles *M. cinctipes* Blake from the Dominican Republic. It is a considerably smaller species with less distinct punctation.

Alethaxius tortuensis, n. sp.

Fig. 7

Length 4 mm, broadly oblong, shining, densely punctate, deep bronzy dark green with a bluish luster over the prothorax; legs and antennae and undersurface reddish brown. Thorax with two undulating teeth on the sides; all femora toothed; female without noticeable elytral rugosities, the punctation on the sides somewhat coarser and with a slight tendency toward costation in apical half.

Head with fine wrinkles radiating from the vertex and on back of head becoming striate punctation; lower front coarsely and not very densely punctate; deep shining greenish black, the mouth parts brown. Antennae reaching well below the humeri, the five distal joints thickened and with the apical half dark. Prothorax not twice as broad as long, with a prominent tooth at apical angle, two rounded teeth on the margin, and a small tooth at basal angle; basal margin sinuate; surface shining, densely punctate in basal half, the punctures in

apical half becoming striate and less dense, with the smooth intervals between them a little raised; except for these costae and somewhat larger lateral punctures, little trace of other rugosities. Body beneath deep reddish brown, lightly pubescent. Legs with all the femora sharply toothed. Length 4 mm; width 2 mm.

Type female, U.S.N.M. no. 58360.

Type locality.—Bassin Bleu, Isle Tortue, north of Haiti, collected in April 1929 by E. C. and G. M. Leonard.

Remarks.—This is the broadest species yet examined from the West Indies, and unlike the females of the other species it has little trace of the elytral rugosities usually present along the sides. Other individuals may show more as there is often considerable variation.

Alethaxius acuña, n. sp.

Fig. 9

About 3 mm in length, oblong, densely punctate, shining, deep reddish brown with a faint aeneous lustre more marked on the prothorax; hind femora with a prominent tooth; margin of prothorax entire; elytra in female with nodulation below the humeri and along the sides, in both sexes the apical half somewhat costate.

Head shining, without depressions, with scattered punctures more densely placed on lower front. Antennae brownish, extending well below the humeri, the five distal joints wider and with darker tips. Prothorax about a third wider than long, with rounded, entire sides, a tooth at basal and apical angles; surface densely and moderate coarsely punctate. Elytra in both sexes densely punctate in basal half, in apical half the punctures becoming striate and less dense with the interspaces becoming a little costate; in the female, the lateral costae more developed and irregular, in some specimens with nodules down the sides below the humeri. Body beneath shining reddish brown, the legs and abdomen a little paler, lightly pubescent; the hind femora with a distinct tooth, the two anterior pairs of femora with vestiges of toothing. Length 2.8–3.6 mm; width 1.4–1.7 mm.

Type male and 2 paratypes (female), U.S.N.M. no. 58361; 1 paratype in M.C.Z.

Type locality.—Moa, Oriente Province, Cuba, collected November 3–16, 1945, by J. Acuña.

Remarks.—This is the second species to be

described from Cuba and the second West Indian species with entire and not angulate or toothed sides to the prothorax. There is a suggestion of angularity in some of the specimens, and it is possible that it may be developed still further in some individuals. The toothing on the hind femora is distinct, but only faint on

the other femora. Like most of the species of the genus, the female shows irregular nodulation on the sides of the elytra. Compared with *A. turquinensis*, *A. acuña* is smaller and paler and has less distinctly toothed femora and a quite differently shaped aedeagus.

ENTOMOLOGY.—*The Aedes (Mucidus) mosquitoes of the Pacific (Diptera: Culicidae).*¹ KENNETH L. KNIGHT, Lt. Commander, H(S), U.S.N.R. (Communicated by R. E. BLACKWELDER.)

The subgenus *Mucidus* is distinguished by the following characters: Wing membrane surrounding the cross veins clouded; palpi of male longer than proboscis, segments IV–V declined, tip of III and all of IV with many very long ventrolateral hairs, V with hairs but these sparser and shorter; male mesosome simple, not divided into lateral plates; claspettes present, with distinct articulated appendages; *ppn* bristles numerous (10–30); lower mesepimeral bristles present; eighth segment of female abdomen completely retractile, cerci long and narrow; larval mouth parts modified for predacity, the mouth brushes forming matted tufts of serrate-tipped rods, the mandibular teeth very large and strong; and larval ventral brush extending the complete length of the anal segment. Members of the subgenus occur in the Tropics of the Ethiopian, Oriental, and Australasian Regions.

The subgenus has been divided by Edwards (1932) into two groups: Group A (*Mucidus*) and Group B (*Pardomyia*) (see keys for separation points). Group B does not occur in the Ethiopian Region. The subgenus contains the following species and subspecies: Group A: *alternans* (Westwood), *grahami* (Theobald), *kermorganti* (Laveran),

laniger (Wiedemann), *mucidus* (Karsch), *nigerrimus* (Theobald), and *scatophagoides* (Theobald). In addition, a new species from the Philippines is described in this paper. Group B: *aurantius aurantius* (Theobald), *a. chrysogaster* (Taylor), *a. nigrescens* (Edwards), and *quadripunctis* (Ludlow).

In the species' synonymic tables that follow, all additional references containing important descriptive, biological, or distributional data are cited.

KEY TO ADULTS

1. Palpi of female over one-half as long as proboscis; scutum with twisted tufts of erect long white scales; about 20–30 *ppn* bristles, some along dorsal margin of *ppn*; general coloration white, yellow, and brown. (Group A. *Mucidus*) 2
- Palpi of female barely one-fourth length of proboscis; scutal scales normal; about 10–16 *ppn* bristles, few or none along dorsal margin of *ppn*; general coloration golden, dark brown, and black. (Group B. *Pardomyia*) 9
2. Tibia with the distal white band subapical; Australasian 3
- Tibia with the distal white band apical; Ethiopian and Oriental 4
3. Leg scales decumbent and appressed; New Caledonia *kermorganti* (Laveran)
- Leg scales long and erected; Australasian *alternans* (Westwood)
4. Fore and mid tibiae with a well-developed median white band (fore tibia with apical white band not occupying more than 0.25 of length of segment) 5
- Fore and mid tibiae without a median white band (occasionally a few pale scales present however) 6
5. Tarsal segment I with distinct basal and median white bands; fore and mid tarsal segments II–III (and often IV–V) with basal white bands; Ethiopian and Oriental *scatophagoides* (Theobald)
- Tarsal segment I with only a narrow basal

¹ This is the seventh paper of a series prepared in part on collections made in the Philippine Islands under the auspices of U. S. Naval Medical Research Unit No. 2. The work was done in space furnished by the Division of Insects, U. S. National Museum. Additional specimens were made available from the U. S. National Museum by Dr. Alan Stone, and from the Academy of Natural Science of Philadelphia by Dr. H. R. Roberts. N. D. Riley and H. Oldroyd made it possible to examine types in the British Museum. Received April 23, 1947.